

CLAIMS

What is claimed is:

1. A method for controlling a mobile station's transmission in a spread spectrum communication system, the system having a mobile station and a base station, the method comprising:

transmitting from the base station a spread spectrum signal and a threshold;

receiving at the mobile station the spread spectrum signal and the threshold;

measuring a received power level of the received spread spectrum signal;

comparing the received power level to the threshold; and

adjusting the mobile station's transmission power level based on in part a result of the comparison.

2. The method of claim 1 wherein the step of adjusting comprises if the received power level exceeds the threshold, decreasing the mobile station's transmission power level and if the received power level is less than the threshold, increasing the mobile station's transmission power level.

3. The method of claim 1 wherein the threshold is a word comprising a plurality of bits.

4. The method of claim 1 wherein the threshold is transmitted in a same channel as the spread spectrum signal.

5. The method of claim 1 wherein the threshold is transmitted in a different channel than the spread spectrum signal.

6. A method for controlling a first station's transmitter's power level in a spread spectrum communication system, the system having a first station and a second station, the method comprising:

transmitting from the second station a spread spectrum signal and a threshold;

receiving at the first station the spread spectrum signal and the threshold;

measuring a received power level of the received spread spectrum signal;

comparing the received power level to the threshold; and

adjusting the first station's transmission power level based on in part a result of the comparison.

7. The method of claim 6 wherein the step of adjusting comprises if the received power level exceeds the threshold, decreasing the mobile station's transmission power level and if the received power level is less than the threshold, increasing the mobile station's transmission power level.

8. The method of claim 6 wherein the threshold is a word comprising a plurality of bits.

9. The method of claim 6 wherein the threshold is transmitted in a same channel as the spread spectrum signal.

10. The method of claim 6 wherein the threshold is transmitted in a different channel than the spread spectrum signal.

11. A spread spectrum communication system comprising:

a base station comprising:

a transmitter for transmitting a spread spectrum signal having an associated chip code and a threshold;

5 a mobile station comprising:

a chip code generator for generating a replica of the associated chip code;

a mixer for mixing the replica chip code with a received signal as a despread signal;

an envelop detector for determining a power level of the despread signal;

10 a decoder for producing a threshold value from a received threshold;

a differential amplifier comparing the despread signal power level to the threshold value; and

a variable gain device for controlling the mobile station power level in response to an output of the differential amplifier.

12. The system of claim 11 further comprising a bandpass filter for filtering the despread signal.

13. The system of claim 11 wherein the variable gain device decreases the mobile station transmission power level, if the received power level exceeds the threshold value and increases the mobile station's transmission power level, if the received power level is below the threshold value.

14. The system of claim 11 wherein the received threshold is a word comprising a plurality of bits.

15. The system of claim 11 wherein the received threshold is transmitted in a same channel as the spread spectrum signal.

16. The system of claim 11 wherein the threshold is transmitted in a different channel than the spread spectrum signal.

17. A mobile station having its transmission power level controlled in a spread spectrum communication system, the system having a base station transmitting a spread spectrum signal having an associated chip code and a threshold, the mobile station comprising:

5 a chip code generator for generating a replica of the associated chip code;
a mixer for mixing the replica chip code with a received signal as a despread signal;
an envelop detector for determining a power level of the despread signal;
a decoder for producing a threshold value from a received threshold;
a differential amplifier comparing the despread signal power level to the threshold
10 value; and
a variable gain device for controlling the mobile station power level in response to an output of the differential amplifier.

18. The mobile station of claim 17 further comprising a bandpass filter for filtering the despread signal.

19. The mobile station of claim 17 wherein the variable gain device decreases the mobile station's transmission power level, if the received power level exceeds the threshold value and increases the mobile station's transmission power level, if the received power level

